5. (Previously Presented) The method of claim 3, wherein the room model information includes data representative of acoustic properties of an environment surrounding each communications terminal.

6. (Previously Presented) The method of claim 3, further comprising the steps of:
sampling data representative of a formulated mix sent to a communications terminal; and
storing the sampled data in a room model associated with the communications terminal.

7. (Previously Presented) The method of claim 1, further comprising the steps of:
decoding the received audio signals;
processing the decoded audio signals responsive to room model information associated with a communications terminal; and
encoding at least one of the formulated mixes prior to sending the mix to its associated communications terminal.

8. (Previously Presented) The method of claim 7, further comprising the steps of:
sampling data representative of a formulated mix sent to a communications terminal; and
storing the sampled data in a room model associated with the communications terminal.

9. (Previously Presented) The method of claim 8 further comprising the step of:
decoding the encoded formulated mix associated with the communications terminal;
wherein the sampling step samples the decoded encoded formulated mix associated with the communications terminal.

10. (Previously Presented) The method of claim 1, wherein the processing step comprises the step of:
performing acoustic echo cancellation on the audio signals.

11. (Previously Presented) The method of claim 1, wherein the processing step comprises the step of:
performing automatic gain control on the audio signals.

12. (Previously Presented) The method of claim 1, wherein the processing step comprises the step of:

performing noise reduction on the audio signals.

13. (Previously Presented) The method of claim 1, wherein the processing step comprises the step of:

determining an amount of processing power to allocate to processing an audio signal responsive to a number of communications terminals engaged in the communication session.

14. (Previously Presented) The method of claim 1, wherein the processing step comprises the step of:

determining an amount of processing power to allocate to processing an audio signal responsive to characteristics of the audio signal.

15. (Original) The method of claim 1, wherein the sending step comprises the step of:

sending time tags including sequencing information with each of the formulated mixes.

16. (Original) The method of claim 15, further comprising the step of:

receiving time tags with the audio signal;

wherein the processing step aligns the audio signal responsive to sent and received time tags.

17. (Currently Amended) A communications system for supporting a communications session among a plurality of terminals, wherein each terminal has a microphone and a speaker, the communications system comprising:

a communications support module (CSM) for receiving audio signals from the microphones of a plurality of terminals engaged in plural communications sessions, **at least one audio signal including a feedback signal produced by the microphone detecting sounds output by the speaker**;

a signal processing (SP) module having digital signal processing resources for performing signal processing on the feedback signals of the received audio signals under direction of the CSM to produce processed audio signals, the CSM operable to assign audio signals to the digital signal processing resources;

a mixing module for mixing the processed audio signals under direction of the CSM to produce one or more output mixes, wherein each output mix is associated with a terminal engaged in the communications session; and

a module for sending each output mix to its associated terminal for output on the terminal's speaker.

18. (Original) The system of claim 17, further comprising:

a room module for holding one or more room models associated with one or more of the terminals, wherein a room model holds room model information, and wherein the SP module performs signal processing on the received audio signals responsive to the room model associated with the terminal from which the audio signal was received.

19. (Original) The system of claim 17, wherein the SP module performs acoustic echo cancellation on the received audio signals.

20. (Original) The system of claim 17, wherein the SP module performs automatic gain control on the received audio signals.

21. (Original) The system of claim 17, wherein the SP module performs noise reduction on the received audio signals.

22. (Original) The system of claim 17, wherein the received audio signals are encoded and further comprising:

a decoding module for decoding the received audio signals; and

an encoding module for encoding at least one output mix prior to the output mix being sent to its associated terminal.

23. (Original) The system of claim 22, wherein the decoding module is adapted for decoding at least one encoded output mix to produce a decoded encoded output mix, wherein the decoded encoded output mix is used by the SP module to perform acoustic echo cancellation.

24. (Original) The system of claim 17, wherein the CSM determines an amount of SP module processing resources to allocate to processing particular received audio signals responsive to a load on the communications system.

25. (Original) The system of claim 17, wherein the CSM determines an amount of SP processing resources to allocate to processing particular received audio signals responsive to characteristics of the received audio signals.

26. (Currently Amended) A system for supporting a communications session among a plurality of distributed communications terminals, **the communication terminals having one or more speakers and one or more microphones,** the system comprising:

a receiving module for receiving audio signals from the plurality of distributed communications terminals, **the audio signals having feedback signals associated with the microphone of a communication terminal picking up the sound from a speaker of the communication terminal;**

a room module for storing room models associated with one or more of the plurality of communications terminals, the room models holding room model information;

a centralized signal processing (SP) module for performing SP on the audio signals **to compensate for the feedback signals** received from the plurality of distributed communications terminals responsive to the room models associated with the communications terminals from which the audio signals were received, to produce processed audio signals; and

a sending module for sending the processed audio signals to the plurality of communications terminals.

27. (Original) The system of claim 26, further comprising:

a mixing module for mixing selected ones of the processed audio signals to produce one or more mixes, wherein the sending module sends the one or more mixes to selected ones of the communications terminals.

28. (Original) The system of claim 26, wherein the SP module is adapted to perform acoustic echo cancellation on the received audio signals.

29. (Original) The system of claim 26, wherein the SP module is adapted to perform automatic gain control on the received audio signals.

30. (Original) The system of claim 26, wherein the SP module is adapted to perform noise reduction on the received audio signals.

31. (Original) The system of claim 26, wherein the received audio signals are encoded and further comprising:

an encoding/decoding module for decoding the audio signals received by the receiving module and for encoding the processed audio signals sent by the sending module.

32. (Original) The system of claim 26, wherein the SP resources are allocated to the audio signals responsive to a total number of available SP resources.

33. (Original) The system of claim 26, wherein the SP resources are allocated to the audio signals responsive to characteristics of the received audio signals.

34. (Previously Presented) A method of sharing signal processing resources to support communications among a plurality of distributed communications terminals, comprising the steps of:

maintaining a central pool of signal processing resources;

determining whether a distributed communications terminal of the plurality of distributed communications terminals is active;

responsive to determining that the distributed communications terminal is active, allocating a portion of the central pool of signal processing resources to

processing a signal from the communications terminal, **the processing compensating for sounds from the speaker of the communications terminal that are picked up by the microphone of the communications terminal**; and

responsive to determining that an audio signal is not active, deallocating a portion of the pool of signal processing resources from processing the signal from the communications terminal.

35. (Original) The method of claim 34, wherein the step of determining whether a communications terminal of the plurality of communications terminals is active comprises the steps of:

receiving data packets from the communications terminal, the data packets forming the signal from the communications terminal; and

analyzing the data packets to determine whether an audio signal is originating at the communications terminal.

36. (Original) The method of claim 34, wherein the allocating step comprises the steps of:

determining an amount of signal processing resources available in the pool; and

determining a number of communications terminals of the plurality of communications terminals that are producing audio signals;

wherein the portion of the pool allocated to processing the signal from the communications terminal is determined responsive to the amount of signal processing resources available in the pool and the number of communications terminals that are producing audio signals.